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PPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/084,182	02/28/2002	Junji Nakanishi	2185-0623P-SP	4912
2292	7590 11/14/2006	,	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			LEE, SIN J	
PO BOX 747 FALLS CHU	RCH, VA 22040-0747		ART UNIT PAPER NUMB	
	,		1752	
			DATE MAILED: 11/14/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

		·	<i>_</i>
	Application No.	Applicant(s)	
	10/084,182	NAKANISHI ET AL.	
Office Action Summary	Examiner	Art Unit	
	Sin J. Lee	1752	
The MAILING DATE of this communication Period for Reply	appears on the cover sheet w	rith the correspondence addre	!ss
A SHORTENED STATUTORY PERIOD FOR REI WHICHEVER IS LONGER, FROM THE MAILING - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailling date of this communication. - If NO period for reply is specified above, the maximum statutory per - Failure to reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the material patent term adjustment. See 37 CFR 1.704(b).	B DATE OF THIS COMMUNI R 1.136(a). In no event, however, may a find will apply and will expire SIX (6) MO atute, cause the application to become A	ICATION. reply be timely filed NTHS from the mailing date of this comm BANDONED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on 05	5 September 2006.		
•	his action is non-final.		
3) Since this application is in condition for allow	wance except for formal mat	ters, prosecution as to the m	erits is
closed in accordance with the practice unde	er <i>Ex parte Quayle</i> , 1935 C.I	D. 11, 453 O.G. 213.	
Disposition of Claims			
4) Claim(s) 1,3-6 and 11 is/are pending in the	application.		
4a) Of the above claim(s) is/are without	drawn from consideration.		
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1,3-6 and 11</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and	d/or election requirement.		
Application Papers			
9) The specification is objected to by the Exam	iner.		
10)☐ The drawing(s) filed on is/are: a)☐ a	accepted or b) objected to	by the Examiner.	
Applicant may not request that any objection to t	the drawing(s) be held in abeya	nce. See 37 CFR 1.85(a).	
Replacement drawing sheet(s) including the corr			
11)☐ The oath or declaration is objected to by the	Examiner. Note the attache	d Office Action or form PTO-	152.
Priority under 35 U.S.C. § 119		`	
12)⊠ Acknowledgment is made of a claim for fore a)⊠ All b)□ Some * c)□ None of:	ign priority under 35 U.S.C.	§ 119(a)-(d) or (f).	
1. Certified copies of the priority docume	ents have been received.		
2. Certified copies of the priority docume	ents have been received in A	Application No	
3. Copies of the certified copies of the p		received in this National Sta	ige .
application from the International Bur			
* See the attached detailed Office action for a l	list of the certified copies not	received.	
Attachment(s)			
1) Notice of References Cited (PTO-892)		Summary (PTO-413)	
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)		(s)/Mail Date Informal Patent Application	
Paper No(s)/Mail Date	6) Other:	* *	

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DETAILED ACTION

1. Claims 2 and 7-10 are canceled claims.

2. In view of the amendment of September 5, 2006, previous 103(a) rejection on claims 1, 3-6 and 8 over Kodama et al'130 in view of Padmanaban et al'690 and previous 103(a) rejection on claims 1, 3-6 and 8-11 over Kodama et al'130 in view of Kawauchi et al'233 are hereby withdrawn.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 3-6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al (US 6,291,130 B1) in view of Ishikawa et al (4,671,854).

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In Example 3, Kodama teaches a positive photosensitive composition containing Resin (P2), triphenylsulfonium triflate and 1,5-diazabicyclo[4,3,0]non-5-ene (a hindered amine) (see Table 1 and Table 4). Kodama's Resin (P2) contains the following repeating units (see col.14, lines 55-65 and col.35, lines 45-55):

Therefore, Kodama teaches present invention of claim 1 except for present component (D). Kodama teaches that the taught photoresist composition may further contain other additives such as plasticizer (see col.84, lines 50-55). Kodama fails to provide specific examples of suitable plasticizer. One of ordinary skill in the art would have been motivated to use a plasticizer which is well-known and conventional in the art of photoresist materials. Adipates such as dioctyl adipate (another name for <u>di-n-octyl</u> <u>adipate</u>), sebacates, azelates, maleates and citrates are well known in the art as plasticizers used in a photosensitive resin composition for improving film-forming

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property of resin and improving flexibility of the coated film as evidenced by Ishikawa et al, col.4, lines 46-64. It would have been obvious to one skilled in the art to use adipates such as dioctyl adipate as Kodama's plasticizer in his photosensitive composition in order to improve film-forming property of resin and flexibility of the coated film. Therefore, Kodama in view of Ishikawa et al would render obvious present inventions of claims 1, 3, 5, 6 and 11.

With respect to present claim 4, Kodama teaches that his resin can furthermore contain one or more other monomer units in order to improve characteristics of the resin (col.57, lines 1-6), and as one of *preferred* examples of such monomer units, Kodama teaches hydroxystyrene monomer unit (col.58, lines 46-54) which increase the alkali solubility of the resin. Therefore, it would have been obvious to one skilled in the art to further include a hydroxystyrene monomer unit in Kodama's Resin (P2) in order to increase alkali solubility of the resin as taught by Kodama. Therefore, Kodama in view of Ishikawa et al would render obvious present invention of claim 4.

Response to Arguments

6. Applicants argue that present invention shows advantageously improved effective sensitivity and resolution properties. However, comparison between Examples vs. Comparative Examples (as presented in Table 2) does not show any *unexpectedly superior* results (the differences in the sensitivity and resolution are very minor). Applicants argue that Kodama'130 fails to disclose or suggest any of present component (D) and that there is no basis to combine Kodama'130 with Ishikawa'854. However, first of all, a plasticizer is an additive conventionally used in a photoresist

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composition, and since Kodama clearly teaches that his composition may further contains additives such as plasticizer, one skilled in the art would have found enough motivation to use a plasticizer in Kodama's composition. Also, Ishikawa is cited as a reference that shows that adipates (such as dioctyl adipate), sebacates, azelates, maleates and citrates are well known plasticizers used in a photosensitive resin composition for improving film-forming property of resin and improving flexibility of the coated film. Since Kodama does not name any specific plasticizer, *in the absence of showing of unexpectedly superior results of present invention*, it is still the Examiner's position that it would have been obvious to one skilled in the art to use adipates (such as dioctyl adipate), sebacates, azelates, maleates and citrates, which are well known plasticizers used in a photosensitive resin composition for improving film-forming property of resin and improving flexibility of the coated film, in Kodama's composition.

For the reasons stated above, present rejection over Kodama et al'130 in view of Ishikawa et al'854 still stands.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S-J. L.

S. Lee

November 12, 2006

SIN LEE